VOLUME XXXVII, No. 2 JANUARY 18, 1940

THE JOURNAL OF PHILOSOPHY

# POSTULATES FOR A LOGIC OF SPECIFICITY

LOGIC or the field of valid reasoning is the last refuge of the absolutist and the transcendist. This is one of the most expansive of the many paradoxes constantly turning up in logical work. Although it has even become a commonplace in mathematics that axioms are postulates or assumptions—that is, selected starting points—and that mathematical systems are discretional constructions, logicians still search for absolute universes. Logicians regard these goals as attained either in the form of relationships between (*a*) autonomous universals or (*b*) products of systematic reasoning. Moreover, it is not only the pure logics that have their *raison d'être* in transcendent totalitarian systems; the same thing is true of the methodological or applied systems as well. To attain absolute and transcendent universes invariant techniques of certainty and apriority are required. Accordingly, it is not unfair to say that with regard to both ends and means logic is pitched upon a high note of generality.

Yet, after all, it must be obvious to everyone that logic can never be anything but a human enterprise—an undertaking which can not transcend the domain of psychological organisms and the particular circumstances in which they operate. In other words, logic comprises specific sorts of operations performed by individuals in definite contact with particular kinds of objects, circumstances, and relations.

Why, then, are we perennially confronted with this logical paradox? The writer believes that one important answer lies in the failure of logicians to assimilate the findings of recent objective psychology. Logicians still regard thinking as a "process going on in someone's mind,"[1] or "inside our heads."[2] The result is that logic is turned away from the actual behavior of men and toward linguistic products of psychological processes—namely, propositions and symbols. Out of these elements are constructed tau-

[1] Cohen and Nagel, *An Introduction to Logic and Scientific Method*, N. Y., Harcourt Brace, 1937, p. 18.

[2] Eaton, *General Logic: An Introductory Survey*, N. Y., Scribner's, 1931, p. 6.

tological and transcendent systems which can only with difficulty or not at all be correlated with significant situations.

The writer proposes that the resolution of the logical paradox calls for the adoption of an authentic operational viewpoint. Accordingly, the present paper suggests a set of postulates basic to a relativistic and particularistic logic.

### Postulate 1. Logic is Operational

Logic constitutes primarily a series of psychanthropic operations. Though the term "logic" refers to products as well as to processes, logic consists essentially of human behavior performed under specific anthropic conditions. Because all logical work is thus definitely localized in particular operational fields, the materials, techniques, and products of given logics are influenced by those fields. Consequently, many persons may be engaged in similar logical action whether in actual collaboration or in mere concert, as in the case of school members. On the other hand, the specific psychological and cultural conditions of logicians may determine them to operate differently in significant details or stimulate them to differ in their views concerning what they do. Whether we observe activities of inference and implication or beliefs concerning those activities, in all cases we are observing specific psychanthropic operations. Even those who believe that by logical processes they can attain cosmic formulae or achieve union with a logos must admit that logic is operational, for such processes, regarded either as inferential or intuitional, are concrete actions or operations.

Logical products emphasize the operational character of logic. Like so many other forms of behavior logical operations result in products, whether recorded or unrecorded propositions, syllogisms, symbols and symbolization, orders, arrangements, or treatises. Whether we regard these products as actions (attitudes, beliefs, or utterances) or as things (recorded calculations or treatises) they owe their existence, character, and value to the preceding operations; thus the operations are as primary in importance as they are in time.

It may be added here that logical rules and principles no less than syllogisms or calculi of various sorts are also products of logical operations, though we must not overlook the contribution of non-reflective operations to the total result. In short, the interrelation of logical and non-logical processes in the production of logical products significantly suggests the operational character of logic. Such a fact precludes the notion that logic is an organon or instrument—a thing rather than actions. The instrument conception is just as undescriptive when logic is regarded as a tool

for practical purposes as when it is thought of as an organon for regulating thought or transcending concrete experience. Certainly we must not confuse logic with the products of operations or with things used in carrying on such operations.

### Postulate 2. Logical Theories are Continuous with Logical Practice

Granted that logic constitutes series of operations, are these operations acts of theorizing or the construction of rules for thinking and reasoning? Logic is universally considered as either the theory of inference, of mathematics, or of inquiry, and is therefore looked upon as different from logical practice. This distinction is shown not only in the classic differentiation between formal and empirical logic or logic and scientific methodology, but also in the attempt to set off technical inferential and calculative behavior from the more intimate and personal activities of the same genus. We find two objections here. In the first place, such notions tend to conceal if not ignore the fact that all logic consists of the operations of persons with a variety of specific rules, and, secondly, there is discernible here the undesirable tendency to reify logic and make it autonomic and transcendent.

The operational character of logic, therefore, sublimates the distinction between logical theory and logical practice. At most, such a distinction differentiates between the examination or study of operations and those operations themselves. In the end, however, study operations, whether theorizing, thinking, or reasoning, are all, of course, fundamentally operations. There is consequently no real difference between these two alleged types of logic. Nor is logic as a series of organizational operations merely an intellectual enterprise—when intellectual is regarded as different from various sorts of concrete manipulations. Intellectual behavior is likewise operations of individuals with objects, howsoever different in detail the operations may be.

We are proposing, therefore, a pragmatic operational continuum. At the lower boundary this continuum includes the acts of an individual organizing materials—say, for assembling a machine or arranging letters to form words—which acts may be regarded as basic or primary operations. Next in the series are the activities of the observer of the operations of the first grade. These also constitute performances or operational behavior. Then we have the activities or operations of the individual who criticizes the observational processes of the second-level worker. Palpable and important as the differences are between the different operational levels of this continuum, by virtue of particular sub-

ject-matters and gradations of skills we may still say that there is no difference in principle between the practical organization of objects and the most technical or abstract logical procedures.

Note, however, that the series is limited in range. We are exclusively concerned with the occurrence of specific events involving activities of individuals in contact with manipulatory objects, whether the latter are crude, as in the first level, or highly refined and subtle materials (abstract relations) as in the work of the mathematical logician.

### Postulate 3. Logical Operations are Interbehaviors

Like all psychological activities the logician's performances are only factors of operational events. As such they must be regarded as coördinate with the activities of the particular objects likewise constituting essential factors of the total field. That the objects interbehaved with are abstract detracts nothing from their importance in the behavioral event. Even if these objects exist only as arbitrary constructions they are derived from and substituted for by natural objects. Accordingly, all logical operations constitute in principle concrete, observable, natural phenomena. Certainly, the interbehavioral fact stands in the way of any belief in detached psychic processes as a basis for general and transcending reasoning.

Furthermore, every particular interbehavior is set in a special reference frame. Immediately it becomes apparent that any particular type of logic, whether formal, empirical, symbolic, or methodological, is conditioned by the type of material dealt with and the general conditions under which the work is done. Similarly, within the boundaries of any particular type of logic, the operations constitute interbehavior with things—interbehavior determined by the problems and life conditions of the particular logicians involved. It is in this sense that logic is a psychanthropic phenomenon.

In no sense is logical interbehavior to be interpreted as formal modes of action inevitably evolved out of biological processes, possibly as a means of achieving biological or social adjustment. Whenever such a notion is seriously taken it meets with the obvious objection that a general motive or purpose is imposed upon and made to limit logical operations. It is a necessary requirement of the interbehavioral principle that particular logical operations must be accepted as actually occurring events. Obviously, such events always have and always reveal a historical background. But this background must not uncritically be regarded as an absolutely determining factor in any present situation. After all, persons interbehave with immediately present objects and conditions. Hence

the exigencies of these conditions make possible and often result in new forms of operations and new sorts of logical rules and procedures. Certainly in some cases logical operations may be correctly described as biological and/or social adjustments, but the correctness can be determined in specific instances only.

POSTULATE 4. LOGICAL OPERATIONS CONSTITUTE SYSTEM BUILDING

If there is one generic characteristic of logical operations or interbehavior it is that such work consists of system building. Logical operations have evolved as techniques for achieving systems as products. But despite the general descriptive character of logical interbehavior, system building must be regarded as specific types of events. To be logical, interbehavior need not involve any single form of material, any particular manipulations or criteria of organization. Certainly logic can not be limited to the interrelation of symbols or symbol-operations as in mathematics, or the arrangement of propositions according to some plan of necessary inference, whether syllogistic or synthetic deduction. Indeed, as is forecast in the popular references to the logic of archaeological construction or the logic of curriculum making, any form of systematization of actions, objects, or events constitutes logical work. We have already suggested the inclusion within logical boundaries of overt manipulations of various sorts—for example, the assembling of mechanical systems.

With the multiplication of geometries and arithmetics even mathematicians as essential system builders have been forced to give up the notion of logic as a unique form of organization of abstract materials with incontestable criteria. True enough, mathematicians still hope to attain general analyses which shall incorporate all the essential features of mathematics. But even if such an idea could ever be attained it would only illustrate one form of system building.

The exemplary logical stress of validity does not characterize a principle uniquely pertaining to logic. On the contrary, it merely emphasizes a phase of system-building processes. In the obvious absence of transcendent criteria, validities can only be established upon conformities based upon selected premises. Such validities vary in detail with the character of the problems encountered and the kind of material worked upon. Prior to an inspection of a system no determination of validity is possible. A general statement, however, may be ventured—namely, no type of validity-criterion whether non-contradiction, social need, completeness, or symmetry, can claim to be anything but a single feature of specific system building.

Several corollaries follow from this postulate. In the first place, logic is no more a philosophical than a scientific, a technological or a commercial, discipline. In no sense does it have any ultimate subject-matter, technique, or products. Whatever classificatory scheme it is fitted into must be regarded as an arbitrary one for a particular purpose based upon observed system-building operations.

In the second place, system building is constructional. Logical work always begins in particular situations with given materials. All creation, therefore, reduces to manipulation, analysis, dissection, generalization, and substitution. All system-products are only relatively novel, representing the limited transformation of received (observed) raw materials or extrapolations from them. Not even the most original inferential or problem-solving activities constitute more than a calculative ordering or arrangement of factors rooted in the objects or conditions stimulating the constructional enterprise.

### Postulate 5. Logical Interbehavior is Specific

Granting that logic consists of definite system-building interbehavior with actual materials, it follows that logical work constitutes specific and particularized enterprises. This specificity applies equally to process, field, and result or product. In brief, there is no significant logic that covers all phenomena on the basis that whatever exists or may exist possesses common, pervasive, general characters or properties. Nor is there any general procedure for effectively dealing with any kind of material in the sense perhaps of organizing the relations which propositions sustain to each other.

Specificity logic makes plain the futility of seeking to achieve comprehensiveness, necessity, and finality in local (particular fields) or general (cosmic) investigation. When the logician is cosmically or metaphysically inclined, his activities are presumed to apply to or achieve results concerning *a* or *the* universe. The localistic logician, on the other hand, deals with more specific problems, such as the methodology of science or the foundations of mathematics. Whether the logician regards himself as concerned with local or general problems he attempts to lift both himself and his work out of his psychological and anthropological frames of reference.

Illustrations are numerous—for example, the attempts of scientists to expand their formulae to include the universe, and of mathematicians to reach out toward infinities. In every case, however, it is clear that such constructions consist of the work of persons acting upon their own responsibility and according to their own lights. Universes and totalities are mere verbal constructions, while lin-

guistic and reflective behavior can only be valid procedures in operating with specific situations.

Logical work, we repeat, constitutes specific system building. This is not to deny the value of general principles, which, indeed, are implied in the very process of system building. No reflection and certainly no science can either be initiated or proceed without generalization, but these universals are merely organizations of results obtained by direct and indirect contacts with particular things. The comprehensiveness, necessity, and finality of such organizations are in every case functions of specific situations.

So inherent is ultimacy in the thinking of logicians that even those who theoretically accept the specificity principle violate it in practice. Accordingly, those who give up cosmological systems still insist upon some absolutistic form of logical procedure, whether it be induction, deduction, syntacticism, a single interpretation of probability, or some general pattern of inquiry. All of these activities and many others constitute particular operations suitable for special purposes or phases of a large number of system-building procedures. It is hardly a mitigation of the universalizing tendency generously to adopt several of these processes. An objective and unbiased observation of logical work forces upon us the conclusion that there are many types of logical situations. The kind of problem we have and the kind of material we deal with determine our methods and results.

The specificity postulate does not exclude any system from the system-building domain. It leaves room for the organization of the most abstruse tautological structures. What it does insist upon, however, is that each such system be restricted to its proper bounds. For example, it warns us against any one system to cover all. In detail, it demands the recognition that scientific methodology is merely a name for many different problems, phenomena, and techniques. Similarly, it claims that mathematics consists of different branches requiring varying postulates and techniques. Not only do current mathematical systems differ from Aristotelian or traditional formal logic, but they involve series of unique system-constructions with enormous variations between them.

To believe that there is only one logic or that logic is a universal system is simply blinding oneself to the actual facts of reasoning and other logical operations. Nor is it helpful to satisfy ourselves with pairs of logics such as logic (pure) and methodology (applied) or formal logic and the logic of truth. Nothing less is adequate than to take account of the innumerable system-building operations performed under the adopted restrictions of validating criteria.

Specificity logic demands, therefore, that logicians abandon such

notions as that geometry is the prototype of all rational procedure or that the formality and generality of mathematical analysis are the veritable signs on the high road of reason. Again, we must renounce the doctrine that simplification is the one sovereign procedure in reflection or logic. Rather, we may accord to any known technique its demonstrated merit in the construction of logical systems. As we have indicated, there are no absolute elements or factors for logic, though there are numerous principles of organization in any logical enterprise.

At the basis of all totalitarian and ultimate systems is the confusion of a construction with the product of that construction or some thing which it stands for. Because our descriptions of logical work are constructed out of sentences or symbols we translate all system-building interbehavior into organizations of propositions or equations. In this way generalized intellectual systems are substituted for the actual manipulations of things in organizational procedures. Furthermore, since constructions can be erected upon prior constructions, there is grave danger of accepting such systems as more independent phenomena than they really are. A totality so derived is inevitably the groundwork started from—that is, a system of some sort is adopted and then the assumption is made that by some logical procedure it is discovered.

### Postulate 6. Logic is Uniquely Related to Culture

If logic consists of actual interbehavior, it must sustain unique relations with the human situations in which it occurs.

In the first place, as a human enterprise logic can not escape certain cultural influences. For example, the totalitarian and transcending tendencies of logic reflect theological and cosmological components of our civilization. Similarly, pragmatic and instrumental logic mirrors recent industrial and technological phases. As the history of logic indicates, both the gross and subtle changes of the civilizational milieux of logicians have given particular turn and complexion to their logical views. The same conditions have influenced the rise and decline of schools or traditions. Here we have an inevitable circumstance which can only be set aside by arbitrary verbal assertion.

On the other hand, logical interbehavior is never absolutely determined by cultural conditions. Culture is so complex and so diversified as to allow a fair measure of independence for particular logicians. Consider the opposition between Hamilton and Mill among British logicians and the conflicts between various school members in the American scene. Beneath and beyond all conventions is the world of nature which gives the possibility at least of a

progressive peeling off the accumulated layers of trend and tradition. This makes possible a freedom from beliefs and theories concerning natural and cultural phenomena, including logical theory, and a resulting unencumbered orientation toward these phenomena themselves.

The relation between a logician's work and the environing scene is, therefore, one of delicate balance. The worker assuredly is somewhat fashioned by the intellectual climate in which he lives, but, on the other hand, so great are the variations in that climate that specific workers are able to give their activities individual point and direction. Thus logical systems may vary in their postulates, subject-matter, particular techniques, and end results. Such variations depend upon an inclination toward mathematical, social or human, or natural-science aspects of a single cultural complex. It is for this reason, for instance, that we do not regard it necessary that the present postulates conform to the mathematical independence criterion.

### Postulate 7. Logic is Inseverably Interrelated with Psychology

If logic is the field of system-building operations, obviously the psychological factors involved in such activities can not be overlooked nor even minimized. That psychology and logic are inseverably interrelated is, however, a proposition independent of any particular view of logic.

Certainly all naturalistic logicians—those who, in favor of specific intellectual orientations, reject absolute organons and canons as a basis for omniscience—appreciate the importance of psychology for logic. But even they are not sufficiently immured with ideas of relativity and specificity to observe that while psychology is subject to rules of logic, logic is likewise subject to psychological laws.

The history of logic reveals not only that logical theory varies with varying notions of psychology, but also that most of the difficulties of logic are owing to inept psychological notions. This point may be illustrated by the case of Russell. In a Platonic mood he wrote:

> Throughout logic and mathematics, the existence of the human mind or any other mind is totally irrelevant; mental processes are studied by means of logic, but the subject-matter of logic does not presuppose mental processes and would be equally true if there were no mental processes. It is true that in that case we should not know logic, but our knowledge must not be confounded with the truths which we know.[3]

[3] "Discussion on the Axiom of Infinity," *Hibbert Journal* (1904–05), p. 812.

Upon the psychological premises revealed in this quotation the conclusion is only to be expected. Russell himself, however, has seen the consequences of transcending the limits of human interbehavior, and has pointed out the wreckage in the wake of those who believe that by means of abstractions and implications they can validly extrapolate beyond any actual data. We need only be reminded of the transfinite paradoxes and of the ineptitudes checking the progress of those attempting to proceed with infinite numbers of steps.

Accordingly, Russell has utterly repudiated this kind of logic, espousing the extreme that "logic is dependent upon psychology." [4]

The conversion apparently followed the recognition that logicians could not escape the meanings of words or symbols. He declares:

> The problem of meaning is one which seems to me to have been unduly neglected by logicians; it was this problem which first led me, about twenty years ago, to abandon the anti-psychological opinions in which I had previously believed. The problem is a difficult one to state rightly, because we are concerned with the relation between words and things that are not words.[5]

Unfortunately, however, this change of heart does not involve an abjuration of unlimited abstractionism. Russell's resort to psychology, then, only amounts to a swing of the pendulum away from medieval realism to nominalism. He writes:

> Logical constants, therefore, if we are able to say anything definite about them, must be treated as part of language, not as part of what the language speaks about. In this way, logic becomes much more linguistic than I believed it to be at the time when I wrote the "Principles." [6]

Nevertheless, Russell himself realizes how unsatisfactory this linguistic or nominalistic view is. He declares:

> How far it is possible to go in the direction of nominalism remains, to my mind, an unsolved question.[7]

To adopt this linguistic position would be to accept the ideas of the formalists of whom Russell says:

> They are like a watchmaker who is so absorbed in making his watches look pretty that he has forgotten their purpose in telling time, and has therefore omitted to insert any works.[8]

Howsoever unsatisfactory the situation still remains, the point is established that it is fatal to neglect the place of psychology in logic.

[4] Cf., Symposium entitled "The Relevance of Psychology to Logic," Aristotelian Society, Supplementary Vol., no. 17, London, Harrison, 1938, p. 43.

[5] *Ibid.*

[6] Russell, B., *The Principles of Mathematics*, N. Y., Norton, 1938, Preface.

[7] *Ibid.*

[8] *Ibid.*

Clearly, logic is not psychology; each has its own distinct field of investigation. Obviously, if logic is not psychology, neither is it non- nor anti-psychological. Upon the well-established principle that no absolute barriers mark off any discipline from another it is wise for logicians to accept whatever positive aid psychology offers in constructing logical systems. Naturally the alliance suggested presupposes a different kind of psychology from the historical approximations. Both the traditional submergence of logic in psychology—as among the sensationists, Mill, for example, and his successors—as well as the rejection of all contact between logic and psychology, as by the formalists and realists, are based upon outworn notions of psychology.

Not that psychology alone has important bearings for logic. Since logicians are cultural organisms, biology and anthropology likewise weigh heavily among the related disciplines, though a fair case may be made for a greater intimacy between psychology and logic than between logic and the other two. So far, however, we have stressed the side of the logical individual. Because logical interbehavior, whether regarded as reasoning or system building, involves materials or objects to work upon, one may well argue that the success of the work depends as much upon the objects as upon the operations—if, indeed, the two can be so far separated. Let us grant, then, that there really is no closer connection between logic and psychology than between logic and physics, chemistry, geology, or even non-scientific areas of events.

Logicians generally fail to realize that like physics, chemistry, mathematics, etc., psychology also has become a natural science. At any rate, an objective psychology is in course of evolution, which is neither concerned with psychic states nor with biological functions, but with the observable and experimental behavior of organisms with stimulus objects in definite natural and human fields. It is only such a naturalistic psychology that can aid logicians in building significant and valid systems and achieving their realizable goals of certainty and probability.

The significance of the present postulate may be illustrated both by a negative and a positive example. As to the former, we indicate how objective psychology can dispose of the age-old problem of universals which still plagues logical workers.

(*a*) Realists stress stimulus objects, though they endow them and their qualities with a substantial existence far removed from actual human interbehavior. This extrapolating process is especially clear when these objects are constructions or logical products, as in mathematics.

(*b*) Conceptualists are inclined so far toward responses as to

absorb stimulus objects and to make responses themselves mentalistic. Universals for the conceptualist, then, are concepts and ideas with a tenuous if any connection with natural objects.

(*c*) It is characteristic of mentalistic logicians that whatever they can not assimilate to sensations they put into words or names. Hence arises the nominalistic tradition which reduces universals to words, thus missing the whole natural phenomenon of constructional behavior based upon actual contacts with stimulus objects, including mathematical relations.

The positive contribution of psychology consists of nothing less than aiding logicians to observe that every variety of system building can be nothing more than specific interbehaviors of persons with things. In detail, this amounts to revealing such facts as: (1) the difference between acts of repeating mathematical operations and the verbal or symbolic construction of infinite domains, (2) the limits of verbal or symbolic abstraction of qualities and relations, and (3) in general the nature of meaning, knowledge, and assertions as acts, and their relations to phenomena interbehaved with, whether natural or cultural things, propositions, knowledge, or traditional beliefs.

### Postulate 8. Logic is Distinct from Language

Specificity logic as compared with traditional generalistic logic postulates an inverse connection between logic and language. This means essentially that logic is not exclusively nor even primarily concerned with terms, symbols, propositions, or any other linguistic phenomena. Contrary to logical tradition, symbols, sentences, or propositions for the most part are only means for referring to logical operations or for recording the results of system building. This is, to be sure, not a negligible relationship, and it is precisely because system building is so closely connected with language that we must scrupulously guard against confusing the two.

That linguistic phenomena are closely related to logical behavior and results follows from the fact that language is an integral feature of every complex human situation. Note that language comprises both activities and things. Thing language consists of characters of various sorts (words, signs, propositions, equations) which serve as records and reminders. Activity language constitutes interbehavior which may include processes of recording natural or human events. Now both of these types of phenomena may be the raw materials for, as well as the records of, system building. Yet, (1) system-building interbehavior must be kept sharply distinct from linguistic phenomena, whether (2) acts (referential or

symbolic operations) or (3) things (records, items, and carriers of civilization), if serious errors are to be avoided. Mathematics, for example, may be differentiated into (1) system-building operations—say, the development of an algebra, (2) the activities of referring to certain postulates or relations, and (3) the equations and the treatise embodying the results.

Many historical logical difficulties can be traced to the misconception and misuse of language. For instance, the fundamental technique employed by thinkers to lift themselves out of concrete interbehavioral fields is, of course, the manipulation of words or symbols. Similarly, not only are symbols and propositions regarded as stable objects, as they surely are in some of their dimensions, but also thought to lend reality and permanence to what they refer to or stand for.

There is a transparent continuity in the logos conception which begins with the identification of God or the universe with the word and the various procedures of achieving totality, permanence, and finality by the use of words or symbols. This perennial preoccupation of logicians with words is not merely a reflection of the inevitable place of verbal behavior in carrying out inquiries, but a rationalistic notion that "languages are the best mirrors of the human mind," as Leibniz [9] declared.

An interesting recent version of the logos idea is found in Dewey's statement that all culture and all that culture involves is a product of language, since language is the only means of retaining and transmitting to subsequent generations acquired skills, acquired information, and acquired habits.[10]

> Language includes also not only gestures but rites, ceremonies, monuments, and the products of industrial and fine arts . . . a tool or machine, for example, . . . is also a mode of language. For it "says" something, to those who understand it.[11]

Not only must we not identify logic and language, but if language is to help and not hinder our logical work we must develop adequate notions about language. Here is to be avoided such verbontologies as that some references to phenomena are meaningless, and then jumping to the conclusion that "logic has come to be recognized as being essentially the same as the theory of the formal structure of languages," [12] or believing that all of science may be

[9] *New Essays Concerning Human Understanding* (Langley tr.), Chicago, Open Court, 1916, p. 368.

[10] *Logic, The Theory of Inquiry*, N. Y., Holt, 1938, p. 56.

[11] *Ibid.*, p. 46.

[12] Helmer, O., "Languages with Expressions of Infinite Length," *Erkenntniss* (1938), pp. 138–141.

reduced to language or symbolism.[13] Such verbontological views may be traced back to Condillac's "une science bien traitée n'est qu'une langue bien faite,"[14] and still further to Locke, Hobbes, and the Scholastics. It is views of this nature which lie at the basis of illegitimate logical finalities and generalities.

In concluding the summary of specificity postulates we claim that they not only are in line with actual logical work, but also set no improper limits to such work. To recognize that logic is a distinctly human enterprise operating in specific human situations is no deprivation, but rather an aid in carrying out legitimate logical purposes. It results in keeping in touch with actual conditions and in dealing scientifically with language and thought. What we lose are merely the delusion of infinite powers and the concealment of the facts that certain motives and conventions influence our selection and organization of factors in particular fields of work.

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## RESPONSIBILITY, FREEDOM, AND CAUSALITY; OR, THE DILEMMA OF DETERMINISM OR INDETERMINISM[1]

ONE of the most curiously interesting events in the philosophical world within our time was the publication of Hans Vaihinger's *Die Philosophie des Als Ob*. The author had written the book thirty-five years before venturing to publish it, and even when at last he did allow it to see the light, he did not acknowledge the authorship, but let the book come out with the simple announcement, "Herausgegeben von H. Vaihinger." One naturally looks into the book itself for an explanation of these strange facts, and when one does so he soon comes upon the doctrine of "indispensable fictions," among which the author would include the concepts of God and human free agency. Not content with defending the taking of these admittedly indispensable ideas as purely fictitious, Vaihinger goes on to support his sceptical quasi-pragmatism by arguing that this is what Schleiermacher meant by his doctrine of God, and Kant by his doctrine of freedom.

That this is a misinterpretation in both instances seems very clear, but our concern just now is with the issue involved in the

[13] "The scientific fact is only the crude fact translated into a convenient language." H. Poincaré, *The Foundations of Science*, N. Y., Science Press, 1921, p. 33.

[14] *Oeuvres completes de Condillac*, Paris, Houel, 1798, t. 23, p. 7.

[1] Read, in part, at the joint meeting of the Eastern and Western Divisions of the American Philosophical Association, Columbia University, December, 1939.

latter alone. According to Kant's first *Kritik* scientific causal explanation finds no room for any interruption of the predeterministic order, even in deliberate human behavior. From the point of view of practical reason, however, with its inescapable conviction of moral responsibility, the human agent is morally certain of his essentially free agency. "I ought, therefore I can." Now according to Vaihinger what Kant meant by all this was simply that man's conduct is all completely predetermined, but that for practical purposes it is expedient, even imperative, to think and act *as if* moral freedom, a mere fiction, were really true. Vaihinger's quasi-pragmatism, as we have called it, now turns out to be in accord with what Albert Schinz once called "anti-pragmatism," the doctrine that pragmatism will succeed and ought to succeed, not because it is true but just because it is false, the truth being "sad and not good for man."

But, notwithstanding the seductiveness of such a view in our almost willfully pessimistic and cynical generation, I am convinced that, if we will but consider the rigor of Kant's own moral consciousness and his insistence upon the primacy of the practical reason, we must regard Vaihinger's reconstruction of his doctrine as the exact antithesis of what Kant really meant. If I mistake not, Kant really believed in the responsible free agency of man, as logically bound up with the amply certain conviction of moral obligation and responsibility. From his point of view it was not the moral postulate of freedom but the scientific working hypothesis of complete predeterminism that was the "convenient fiction" (to use Poincaré's term), especially when applied in connection with the psychology of conscious human behavior.

A few years ago there appeared a book which seems to be very favorably regarded among educational psychologists, but in which there is assumed without much argument essentially the same fictionalist interpretation of moral freedom as that advanced by Vaihinger. The book then goes on to discuss pedagogical ways and means of inducing in completely predetermined individuals a sense of responsibility such as they might be expected to feel if they could believe that their conduct was not completely predetermined. I refer to the volume entitled *Responsibility,* by Professor Sears, of Ohio Wesleyan University. Incidentally, Professor Sears misrepresents Professor John Dewey, under whom he studied at Columbia, interpreting him as being, like himself, a complete predeterminist, very much as Vaihinger misrepresented the teaching of Kant.

It matters not, so far as responsibility is concerned, whether, in William James's terminology, the determinism be "hard" or

"soft," so long as both reduce to complete predeterminism. John Stuart Mill and Thomas Hill Green will serve as illustrating these two positions, respectively. According to Mill the strength of each of our various desires at any particular time is completely predetermined, physically or psychically or both, and voluntary action is determined by the strongest desire at the moment of action, which finally determining desire we call the motive of the action in question. Human action is therefore, from this point of view, as completely predetermined as any and every other event. T. H. Green objects to this frank determinism, holding that in deliberate choice the thinking self intervenes among conflicting desires and may even so reinforce one of our weaker desires as to make it the motive which issues in and determines the action. This means, he would have us believe, neither determinism nor indeterminism, but self-determinism. We might at first be inclined to agree; but on further inspection this "self-determinism" turns out to be a mere variety of "soft" determinism; the thinking self which casts the deciding vote is a self with a definite, already determined character, and each particular choice is determined by the predetermined character of the self at the time, so that, given the other predetermined factors and the predetermined character of the thinking self, no other decision could have taken place but the one which did actually occur. Neither according to Mill nor according to Green could any action, in its own given situation, have been different from what it was. And if, in the last analysis, what was done could not have been avoided under all the circumstances, it would seem unfair to hold the doer as any more guilty for a bad deed or worthy of credit for a good one than any other causal link in any sequence of events, whether animal, vegetable, or mineral. The "dilemma of determinism" is inescapable.

If a decision, choice, or action is to be morally free, it must be at some point and to some extent free from total predetermination. As Lossky points out more specifically, it must be free (to some extent) from the external world, from the agent's own body, from his already acquired character, from his past, "from the laws that determine the contents of the temporal process," and from God (N. Lossky, *Freedom of Will*, 1932). This does not necessarily mean that science could not do a good deal of reasonable and valid "explaining" of the free act in terms of attendant predetermined factors and circumstances. There may well be, as F. C. S. Schiller maintained, enough predetermination to justify further scientific investigation of causes, and yet enough freedom from predetermination to justify the moral consciousness of obligation and responsibility.

But just what is involved in this freedom from complete predetermination? Is the alternative to complete predeterminism a total or partial indeterminism, causelessness to some extent, what is sometimes called "chance"? The libertarians have commonly felt obliged to take that position. But as determinists (e.g., G. S. Fullerton) have not been slow to point out, if and in so far as any act is undetermined, uncaused, it is unreasonable to hold anyone really responsible for it. If and in so far as I did not cause my objectionable mental or bodily behavior, why should I be blamed for it, any more than anyone else? If nobody caused it, nobody is to blame for it.

Is it not evident, then, that there is a more comprehensive dilemma than the dilemma of determinism, namely, the dilemma of either determinism or indeterminism? Why, on the one hand, should anyone be held responsible, ultimately, for an act which was made inevitable by factors, inner and outer, which were themselves predetermined by other factors, and so on back to events and factors antedating the agent's conscious existence? And why, on the other hand, should anyone be held responsible for an act if it was undetermined, uncaused, either by the supposed agent or by anyone else? Furthermore, why hold an individual responsible for what is called his act, if it was partly predetermined by factors themselves completely predetermined, and partly not determined at all, but a mere uncaused, chance occurrence? Whether complete predeterminism be true, or complete indeterminism, or partial predeterminism and partial indeterminism, there seems to be no logical room for genuine moral responsibility.

This was the specific dilemma which confronted a certain young candidate for the degree of Doctor of Philosophy at Yale a few years ago, as he brought to a close his year's study of some recent indeterministic theories (James, Renouvier, Boutroux, Bergson, and Whitehead). In a dissertation regarded by the readers as very creditable, he came to the conclusion that a limited indeterminism was quite defensible philosophically. But he found the problem of the rational basis of responsibility no more soluble from this indeterministic point of view than from the completely deterministic presuppositions in reaction against which, largely for the vindication of moral responsibility, the indeterministic theories in question had been formulated. The candidate for the degree could find no logical basis for either moral credit or discredit, so that, from his own point of view, it was a pertinent question whether he ought to be given credit for his supposedly "very creditable" thesis. Indeed one of the examiners facetiously took advantage of this feature of the situation and addressed a rhyming letter to the

candidate, reading in part as follows:

> Here's a question; if you can, sir,
> Please supply a simple answer.
> Was your novel dissertation
> Product of predestination,
> Result of native drive and knowledge,
> Effect of home and school and college?
> Why, if so, should *you* have credit,
> Even though your name may head it?
> Why not graduate some actor
> Who died ere you became a factor?
> If, however, no causation
> Accounts in full for its creation,
> Why should *you* be made a doctor,
> And not some other don or proctor?

(For the gentle reader's comfort of mind I may add that the candidate was graduated without any trouble.)

A curious suggestion has been made as to the way out of this determinist-indeterminist dilemma. This is to the effect that there are two kinds of causation, sequential and antesequential, as the late Professor G. H. Palmer named them. Sequential causation is ordinary efficient causation, predetermination, process determined by a push from behind in time; antesequential causation, on the contrary, is final causation, at least partial causation by something future, the pull of an ideal future end not yet realized in actuality. But surely there is confusion here, due to faulty analysis. How can what is unreal be a cause? It is not the future situation, the future reality of an ideal not yet realized, which functions causally in the present; rather is it the present existence in consciousness of the idea of an ideal future end. We have never experienced antesequential causation; common sense rejects it as absurd and impossible.

But indetermination, determination by the past, and determination by the future do not exhaust the possibilities of suggestion as to ways of escape from our dilemma. There remains the notion of determination by some factor *in the present*. In addition to whatever partially predetermining factors there may be, may not the conscious, purposing self of the moment of decision, of choice and action, be, within whatever limits, a creatively determining factor in the voluntary deed? Why should we suppose that it must be the character and thought of the self immediately preceding the action which is operative in it, rather than the strictly contemporaneous character and thought? If character changes at all—and it certainly does—why may it not change to some extent *in the decision*, and not simply before it or after it? May not partial

self-transcendence be of the very nature of free decision, at least in every instance of momentous deliberate decision?

From this point of view the free act is to some extent undetermined beforehand. It comes to be determined as it is happening. Preceding circumstances, inner and outer, have predetermined certain limits beyond which the voluntary act can not go; but within these limits there is beforehand a plurality in the possibility of action. And so, as common sense has always maintained, our decisions and voluntary actions are undetermined to some extent until they take place; but after they have taken place they are, of course, completely determined. But to say that after the event the act has been completely determined is not to say that it was completely *pre*-determined. It was partially undetermined until it came to be determined as it was happening.

From this point of view we escape the moral absurdity of complete predeterminism without falling into the opposite moral absurdity of indeterminism. The voluntary act can be taken as an expression and index of character, but if we are to be exact we must recognize that the correspondence between action and character of which we can be surest is that between the act and the character at the time of the act, and not necessarily so completely between the act and the character immediately preceding the willed decision. The voluntary act is self-determined to the extent that it is not determined by other factors; and yet such partial but essentially creative self-determination does not spell determinism in the ordinary meaning of complete predeterminism.

The position just indicated may be arrived at by way of a synthesis, albeit a somewhat creative synthesis, of valid insights in the views of Bergson and T. H. Green. According to Green the thinking self determines which desire shall become the motive which determines the action. Bergson, in his 1911 Oxford lectures on the perception of change, maintains that a process of change is not properly analyzed into a mere plurality of static positions, or facts at successive instants, but that the ultimate unit of change is always itself change, a chang*ing* from the content theoretically revealed by one abstract instant's abstract cross-section of the event to that of any other abstract instant, however close to it in time. We need not run with Bergson to the extreme of his process-philosophy, according to which there are only changings and no things which change; nevertheless we may share his insight that change is an ultimate reality, and we may proceed to apply this insight in the realm of character. The character of the thinking, willing self, which, as T. H. Green saw, determines which desire shall motivate the action, is not an absolutely static character, nor even a mere

succession of slightly differing static characters, with intervening, completely predetermined bits of behavior. The character of the thinking, willing self is, in its thinking and willing, in process of change. The character of the self is changing, coming to be, *in* its conduct, and not simply as an after-effect of its conduct—certainly not as a mere result of completely predetermined conduct.

From this point of view we may agree with William James that the question of moral freedom is the question as to whether the way in which we direct our attention is or is not completely predetermined. If we can to any extent control *at the time* the direction or intensity or duration of our attention, we are morally free, even if, as seems arguable, the conduct consequent upon such control of attention is practically determined by it.

From the point of view here advocated voluntary action is seen to have a more or less creative character. This accords with the realistic, common-sense view of causation in general, as distinguished from the inadequate, abstract account given by mere phenomenalism such as Stuart Mill's, according to which the cause of an event, or consequent phenomenon, is simply its unconditional, invariable antecedent phenomenon. The most that can be said for Mill's definition is that it states what causation would be if Mill's phenomenalism were an adequate account of reality, which, of course, from a common-sense, realistic point of view, it is not. We are as sure as we need to be that in our own voluntary action we are not mere spectators of an antecedence and consequence of phenomena. We are participants in the causal process, agents who as causes do something to bring about the emergence of the effect. And even if we concede that voluntary personal activity may be the high-water mark of causality, may it not be at the same time indicative of something more, and more realistic, in causality in general, than mere temporal and phenomenal antecedence?

(In order to obviate a possible misunderstanding, let me interject parenthetically the explanation that I do not mean to suggest, by what I have said, the specific theory of reality commonly known as "personalism," that is, the view that all reality and all causality are personal. Ordinary physical process does not seem to me to be personal or even conscious; nor, apart from human and other animal behavior, does it seem to be such as necessarily to involve personal or other conscious causation *at the time.* As law-abiding and essentially predictable it suggests something of the nature of habit, rather than of conscious creativity. I am quite willing to consider the suggestion that, as much of what we call "our own" unconscious habitual activity was in an earlier situation consciously originated, so also cosmic habit may have been consciously and even

teleologically originated "in the beginning" and at various times since the primordial beginning; but this does not necessarily mean that each and every subsequent instance of physical causation involves conscious, personal creativity at the time.)

The position I have taken in this paper may suggest the further query whether all causality may not be viewed as contemporaneous, and not personal and other conscious causality alone. There is, of course, a valid sense in which we may and do speak of predetermination and predetermining factors; but without giving up the ultimate reality of time, and while recognizing the continuity of process through time, may it not be maintained that, to speak accurately, whatever is functioning causally in any situation at any time must exist at the time it is functioning, even if it may have a character which was first given it at some previous time by some then participating factor which may now have ceased to function, or even to exist? It seems to me that such a position, namely that, strictly speaking, all causation, while in continuity with prior causation, is itself contemporaneous, is quite defensible.

Before drawing this discussion to a close I should like to add two or three further remarks. I am much in sympathy with Bergson's explanation of the scientific prejudice (if that be not too strong a word) in favor of universal predeterminism. Science has been so preoccupied with considering mechanical and chemical processes, which may most appropriately be brought under the rubric of predeterministic causation, that the scientific mind tends almost inevitably to assume that as a matter of course all events must be completely predetermined. But of course this is dogma, not science. It is a common dogma of men of science, resting back upon the habitual preoccupation of the plain man with the mechanical processes of the environment, rather than introspectively with inner motives and processes and their implications. It does not follow, simply because mechanistic concepts are valuable for the interpretation of the environment, which is so largely habitual and mechanistic, that mechanistic categories are therefore adequate also for the understanding of the nature of life and particularly of the conscious self which makes use of those categories.

This is not necessarily to endorse fully the Bergsonian indeterminism; that might almost go without saying, since a way of avoiding that horn of the dilemma has already been pointed out. Nor do we need to go so far from the rationalistic extreme toward the opposite extreme of irrationalism as Bergson himself does. We may find a metaphysical resting-place for our thought closer to the position of Whitehead, according to whose theory cosmic process has been made to partake of a certain primordial rationality, or

order, from which we can learn empirically the largely rational character of reality and at the same time develop into actuality our own potential rationality.

It ought to be evident, furthermore, that, if we accept the position taken in this paper, we are not thereby logically committed either with Planck and Einstein to the deterministic, or with Heisenberg, Eddington, and many others to the indeterministic, interpretation of the Principle of Indeterminacy. In fact, in the present state of our scientific knowledge and philosophic wisdom, we seem to be left in a very indeterminate position with reference to the bearing of the Principle of Indeterminacy upon the question of determinism or indeterminism. This only can we say, that a sharp "Halt!" has been called against the dogmatic universal determinist. At the very least he must admit that, so far as either scientific knowledge or necessary principles of science are concerned, scientist and philosopher are free to adopt as a tenable theory the view that possibly not all ultra-microscopic processes are completely mechanistic or predetermined.

Complete predeterminism can not be demonstrated inductively; neither can it be proved deductively. The attempt to deduce it involves either a begging of the question in the beginning or a *non sequitur* in the end. Psychologically considered, it is the outcome of a rationalization of jealousy for the scientific method. It is thus an assumption adopted for a valid purpose; but our point is that more is assumed than is necessary for that valid purpose. And besides, it contradicts the normally universal moral intuition of responsibility.

Indeterminism on the other hand is an unnecessary rationalization of the moral intuition of responsibility. That is, it assumes more freedom from determination than is the minimum necessary to vindicate moral responsibility.

The doctrine of *a limited creative self-determination at the time* is the minimum necessary for the adequate rationalization of the moral intuition of responsibility. Fundamentally it is a metaphysical inference from the judgment that the normal consciousness of moral responsibility is essentially valid. Moreover, it does no violence either to any necessary postulate of scientific methodology or to the common-sense, realistic application of the category of causality.

Enough, then, has been said, I think, to vindicate the reasonableness of holding to such an alternative to complete determinism on the one hand and to mere indeterminism on the other hand as will leave room in human voluntary activity for a self-determination in which the conduct of the acting self is not abso-

lutely predetermined by his already acquired character nor by anything or anyone else, but in which there is nevertheless such a correspondence between the conduct and the character at the moment of action that the conduct can be taken as an index to the character. Thus, as against complete predeterminism, mere indeterminism, and the view that conduct is partly predetermined and partly undetermined, the view defended fulfills all the logical requirements of the postulate of human responsibility for conscious, voluntary decision and activity.

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## BOOK REVIEWS

*Gli eleati: Testimonianze e frammenti.* PILO ALBERTELLI. (Filosofi Antichi e Medievali.) Bari: Gius. Laterza & Figli. 1939. 30 lire.

Xenophanes is included, along with Parmenides, Zeno, and Melissus, in this scholarly study of the Eleatics. After a brief introduction to each of the four representatives, in which his life, the main features of his philosophy, and its relations to earlier and subsequent thought are sketched, there follows a systematic arrangement of the fragments (paraphrased), the doxographical summaries, and the different interpretations by the principal modern commentators on the subject. Thus, the book is a useful compendium of original and secondary sources on the Eleatics. The author thinks that Parmenides marked the end rather than the beginning of a philosophical movement; but he stood at the parting of two ways that led to Plato and Aristotle, respectively. "La più antica metafisica dei greci viene ormai tramontando, ma in Platone essa troverà, insieme con la morte, la sua massima esaltazione; perchè probabilmente non si è lontani dal vero dicendo che Platone è sulla linea della metafisica preeleatica, mentre Aristotele deriva più direttamente dalla filosofia dei pluralisti" (p. 87).

D. S. M.

*The Moral Philosophy of Santayana.* MILTON KARL MUNITZ. New York: Columbia University Press. 1939. vii + 116 pp. $1.75.

This is an excellent expository and critical study of Santayana the moral philosopher in the various stages of his development. It might be objected that the word "moral" in the title is redundant, since moral philosophy, in the sense of "the hierarchy of goods,

the architecture of values," has long been recognized as Santayana's "chosen subject." As Professor Edman remarks in his compact Foreword to Dr. Munitz's succinct summary of Santayana's condensed wisdom: "The author discriminates and verifies in Santayana two divergent moralities: one worldly, naturalistic, humane, the other unworldly, ascetic, and Indian in character; one conceiving the will as chastened by experience and the world as the field for possible rational happiness, the other differently chastened, differently disciplined, liberated to an ironic emancipation from the world . . . a free roaming among whatever essences may swim into the spirit's ken." Dr. Munitz finds that "no ultimate synthesis or mixture [of the two] such as Santayana evidently seeks is possible"; and casts his own vote for Santayana the Aristotelian as against Santayana the Platonist. While not markedly original in its main theme, his essay is laudably brief, pointed, workmanlike, and sympathetic.

H. A. L.

*Das Problem der Logik als Entwicklung des Prinzips der Heterothese.* FRANZ HLUČKA. (Neue Philosophische Forschungen. Heft 2.) Leipzig: O. R. Reisland. 1939. 80 pp. 2.63 M.

Based upon the ideas set forth in Rickert's well-known *Die Logik des Prädikats und das Problem der Ontologie,* this brief, highly concentrated and schematic study is mainly concerned with the interrelations of the categories. Three "heterotheses" (Rickert's term) are set up. The heterothesis of "being" divides into existence and validity. Under existence fall number-values and space-time-values, while under validity, *Bedeutung* (mathematics) and *Sinn* (logic) are listed. The second heterothesis is concerned with the rational; the third, with the "I." The latter divides into character and personality. Civilization and national cultures are subsumed under mankind, a fourth heterothesis. The barrenness of the method is illustrated by the author's absurd conclusion that the propositional forms, *A, E, I, O,* correspond to the basic fields of experience, viz.: *A* to religion, *E* to community, *I* to the esthetic, and *O* to nature.

V. J. McG.

*Organische Psychologie. Grundriss einer psychischen Anthropologie.* WILHELM REYER. (Neue Deutsche Forschungen, Band 227.) Berlin: Junker und Dünnhaupt. 1939. 162 pp. 7 M.

Reacting strongly against all forms of sensationism, the author attempts to build a unitary psychological theory in which "mean-

ingfulness'' is the fundamental concept. With this end in view he surveys almost the whole of the field of psychology, from problems of perception to questions of personality. His terminology is clear, and his systematic intention is commendable. Nevertheless, those forms of ''meaningfulness'' which are assumed to play the dominant rôle in conscious processes are never adequately considered. One looks in vain for any critical analyses of this concept or for any concrete treatment of specific problems in the psychology of perception which it enables the author to solve. In the absence of such supporting materials the work can scarcely be considered as a serious psychological system; its main strength lies in its schematic indication of those problems of ''meaningfulness'' with which any adequate psychology must deal.

M. M.

*An Introductory Course in Philosophy.* J. A. NICHOLSON. New York: The Macmillan Company. 1939. xii + 508 pp. $2.75.

This book falls into two approximately equal bodies of material, —text by the author and selections from philosophical classics. After an introduction that assures the student of the value of philosophy, the text takes up ''the four chief problems of philosophy,'' —''what is goodness? what is beauty? what is truth? what is ultimately real?'' (p. 6). The selections were chosen of course to accompany and to illustrate the problems discussed in the text. For the introduction there is given Plato's *Apology.* For the discussion of ethics there are selections from Plato's *Protagoras, Gorgias, Crito,* and *Philebus;* of esthetics, from Plato's *Ion, Phaedrus,* and *Symposium;* of theory of knowledge, from Descartes' *Rules,* Hume's *Treatise,* and Kant's first *Critique;* of metaphysics, from Berkeley's *Dialogues,* Comte's *Positive Philosophy,* and Royce's *The World and the Individual.*

No courses in a college catalogue are probably as personal and dependent upon taste and character of the instructor as are the so-called ''Introductions to Philosophy.'' And no books are probably as dependent upon the personality of the author for their effective use as the books designed for such courses. Comment upon such books apart from their authors' use is therefore likely to be inadequate. This particular book seems to this reviewer to be an attempt to make the student realize that the discussions of professional philosophers have pertinence to their thinking. Though the selections are from the classics, the text utilizes them to determine the relative merits of the competing ''-isms'' which divide professional philosophers into representatives of certain schools of thought. Thus the book seems to make of philosophy an

academic exercise such as must be forever on the defensive against the allurements of other curricular enticements and rival subject-matters.

S. P. L.

*Two Bookes of Constancie.* Written in Latin by Justus Lipsius, Englished by Sir John Stradling, edited with an introduction by Rudolf Kirk and notes by Clayton Morris Hall. New Brunswick: Rutgers University Press. 1939. ix + 223 pp. $4.50.

The Rutgers University Press is to be congratulated on the fine piece of book-making here instanced. The book is handsomely printed and bound. The *Two Bookes of Constancie* appeared in its original Latin form in 1584 and is here given in its English translation of 1594. The little treatise is of scholarly interest if not of creative power. It is a presentation of the Stoic position in a form suited to the Christian faith: it urges men to submit with "constancy" to the "public evils" which come from the will of God and so are inescapable, and yet to struggle heroically against these evils with all their wills as befits Christian men. The text given is based on a copy of Stradling's translation borrowed from the library of Princeton Theological Seminary. Mr. Kirk's introduction gives biographical information about Lipsius, bibliographical data on the Stoic authors that were put into English between 1481 (when a translation of Cicero's *De Amicitia* appeared) and 1614 (when "the blossoming time of classical Stoicism in modern England ends"), and a summary of certain points on which Lipsius's Christian form of Stoicism differs from ancient pagan Stoicism. The notes give further bibliographical information and explain various literary references of the text of Lipsius.

S. P. L.

*Modern Philosophies of Education.* JOHN S. BRUBACHER. New York and London: McGraw-Hill Book Co., Inc. 1939. xiv + 370 pp. $3.00.

The principal aim of this treatise, according to its author, "is to afford within the covers of a single book an introduction to the whole range of viewpoints on the main problems of educational philosophy" (p. viii). In pursuing this aim, the author has dealt studiously with the bulk of American literature in educational philosophy published since 1900. Professor Brubacher's is the first attempt to summarize and classify comprehensively these voluminous writings. Since it is this feature of his work which will properly justify its wide use by students and teachers of American educational theory, this review focusses upon the character and

quality of his methodology in summary and classification. The pertinent contributions from contrasting philosophic points of view are assembled under topic headings which are said to be "determined by the categories of actual school experience" (p. ix). These topics include the metaphysical and epistemological bases of education, philosophic bases of educational psychology, the individual, society and education, education and the economic order, the civil state and education, the educative process, religion, morals, and education. In a concluding chapter, the author seeks, in rather mechanical fashion, to pull together "the strands of philosophic position dispersed throughout the preceding exposition" (p. 325) under the vague headings of "progressive education" and "essentialism." Even more darkly the theory of "progressive education" is subdivided into "pragmatic" and "naturalistic" varieties and the theory of "essentialism" into "idealism" and "realism."

Two features of the methodology of this work seem particularly worthy of brief comment. (1) Examination of the topics under which Professor Brubacher has organized the bulk of his material suggests that much (if not most) of the vital educational discussion of educational theory in our century has been addressed, by direction or indirection, to the deepening socio-economic crisis in American culture. This reviewer believes that an effort to place the main tendencies in educational theory, even in its apparently remote phases, in relation to this historical-cultural context might well have yielded a much more useful and illuminating classification for these tendencies than that of "essentialist," "progressive," "idealist," etc. Dr. Brubacher has himself used such a method with notable success in his chapter on education and the economic order. (2) The author's apparent belief that the way to philosophical "objectivity" lies in sedulously avoiding the development of a personal point of view may well be questioned. The thoughtful reader realizes that some point of view has operated in selecting and arranging the various comments on these problems. He rightly values a forthright and responsible development and expression of this operating perspective as symbol and evidence of the author's "objective" self-awareness, as a necessary datum in judging readily the range of problems in which the selections are reliable and useful, and as tending to build an inclusive (because personalized) basis of common outlook (hence of objectivity) between author and reader.

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## OTHER NEW BOOKS AND JOURNALS

Meyers, Albert L.: Modern Economic Problems. New York: Prentice-Hall, Inc. 1939. xiv + 311 pp. $2.50.

ETHICS. Volume L, Number 2. Power and Law: A Study of the Concept of Law: *Edgar Bodenheimer.* Natural Law and Expediency in Medieval Political Theory: *Ewart Lewis.* The Structure of Social Action: *Harvey Pinney.* Discussion—The Original Contract: *H. D. Lewis.* Coherence and the Moral Criterion: *P. T. Raju.* Individualism and Groupism: *R. F. Swift.*

THE THOMIST. Vol. II, No. 1. Thought, Volition and the Organism: *Thomas Gilby.* Outline of a Philosophy of Art: *A. J. Steiss.* Faith and Mysticism: Two Studies: *Norbert Drewitt.* Problems for Thomists, I—The Problem of Species (Part Four): *M. J. Adler.*

ZEITSCHRIFT FÜR ÄSTHETIK UND ALLGEMEINE KUNSTWISSENSCHAFT. XXXIII. Band, 4. Heft. Kunsterkenntnis und Kunstverständnis: *Richard Müller-Freienfels.*

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## NOTES AND NEWS

The newly-elected officers of the Pacific Division of the American Philosophical Association are as follows: President, B. A. G. Fuller; Vice-President, Everett J. Nelson; New Members of the Executive Committee, Edward W. Strong, John A. Irving.

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The College of the City of New York announces the following lectures in the Spring 1940 series on the subject "Philosophy and the Liberal Arts and Sciences":

January 8, "New York as a Living Design," by Lewis Mumford.
March 4, "The So-called Limits of Scientific Knowledge," by Philipp Frank.
March 18, "American Thought," by Morris R. Cohen.
April 22, "The Next Peace," by Arthur O. Lovejoy.